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US ARMY MEDICAL RESEARCH LABORATORY

FORT KNOX, KENTUCKY 40121

REPORT NO. 852

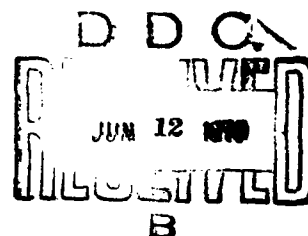A SINGLE CARD LABORATORY REFERENCE INDEX SYSTEM

(Final Report)
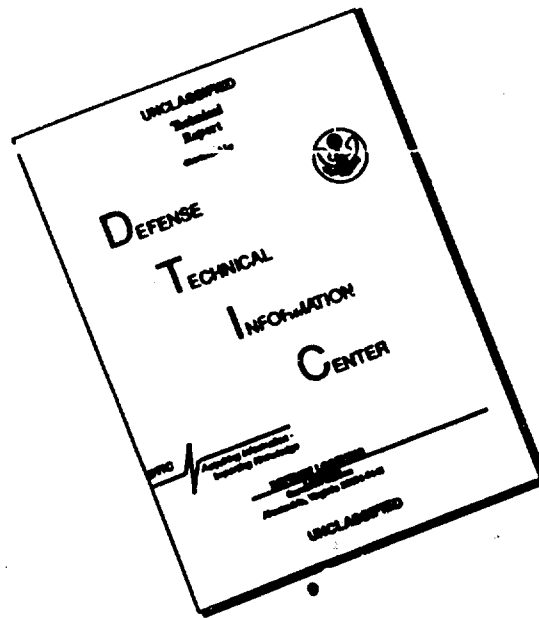
by

SFC Arthur H. Schipul, Jr.

18 February 1970

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UNITED STATES ARMY
MEDICAL RESEARCH AND DEVELOPMENT COMMAND

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ACKNOWLEDGMENT

Figures 1 and 2 are made from the Keysort Notching and Sorting
Manual, McBee Automated Business Systems. The assistance of Mr.
William P. Colsher, McBee Sales representative, is duly noted and
appreciated.

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A SINGLE CARD LABORATORY REFERENCE INDEX SYSTEM

(Final Report)

by

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18 February 1970

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ABSTRACT

A SINGLE CARD LABORATORY REFERENCE INDEX SYSTEM

OBJECTIVE

    To develop a quick-access file to scientific references for general laboratory use.

METHODS

    Punch card filing system was coded in five systems to provide a general index as well as cross-reference file.

CONCLUSIONS

    Single card entry for each reference was integrated into a five-code classification system to provide casual access. The system was economical and readily adaptable to individual or general laboratory use.

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A SINGLE CARD LABORATORY REFERENCE INDEX SYSTEM

INTRODUCTION

There comes a time in the life of a medical laboratory technologist
when a search for a particular reprint in a mountain of acquired ref-
erences is in a direct exponential relationship to ulcer development.
When this occurs, one may either paraphrase from memory or go to the
Index Medicus for an organized method to search for the particular re-
print again. It is the purpose of this article to describe a simple one
card (self-coordinated) reference index for medical laboratory technol-
ogists to permit rapid access to references.

MATERIALS AND METHODS

This system utilizes a standard Keysort card (KD 584B), a hand punch
(#5227), a Keysorter or steel needle set in a handle, and an alignment
block. Optional items are card savers or correction tapes.

The system revolves around a Keysort bibliographic card whose edges
are divided into five basic coded areas. The data are coded onto each
card by a series of simple punches designating the year, author, classi-
fication index, numerical index, and a direct index.

When the five coded areas are carefully keyed to laboratory require-
ments, a simple but accurate reference index emerges. The author utilizes
the following divisions for the five areas:

1. Year of reference publication.

2. Alphabetical index (senior author).

3. Direct index (major laboratory subject - 60).

4. Classification index (subdivisions of major subjects - 32).

5. Numerical index (project number - see below).

DISCUSSION

With such a classification scheme the necessity for cross-index
filing (a requirement in most coordinated reference systems) is elim-
inated. One file contains all the necessary information in this edge-
punched information retrieval system. The requirements for author files,
key word files, and subject reference files are thus eliminated.

A search of this card system is performed by inserting a Keysorter
needle in the applicable punches of the five areas on a stack of cards.
The desired cards will fall readily from the stack. In addition to ease

in finding information, the system makes refiling a simple matter of replacing the cards anywhere in the file container. The needle will infallibly find them when they are needed again.

Two types of codes have been determined to be essential to such a system, i.e., numerical and alphabetical. The numerical code depends upon a field of four holes to classify values of one to nine by notching as indicated in Figure 1. Zeros are not notched. The alphabetical code depends upon a similar pattern with the letters of the alphabet being assigned numbers. The notching for the alphabetical code is illustrated in Figure 2 (page 4).

Figure 3 (page 5) shows a sample Keysort card with the type of area classification indicated. The year of the reference publication is self-explanatory. The alphabetical index area is used for the first three letters of the surname of the senior author. In the instance of such common names as Smith, the first two letters and the first initial might be used: Smith, Arthur, would code as SMA.

The direct index area is only used partially. Holes one to 30 in double rows give a possible 60 major laboratory subject headings: Administration, lab; Bacteriology; Computer Technology; etc.

The classification index requires a slight adaptation. The designated area for the classification index incorporates those holes above and below the printed words "classification index." This permits an expansion to 32 subdivisions of the major subjects in the direct index: Theory; Automated Procedures; Manual Procedures; etc. To notch, the numbers one to 32 were visually assigned in this area.

The numerical index permits a sequence coding to 999. This area is utilized for the identification numbers assigned to our research projects, based upon a special code. The numerical system could also be designed to fit individual needs.

To the left of the numerical index are four unused holes. These have been assigned a disposition code for papers prepared for presentation.

Figure 4 (page 5) shows a sample card from our established reference file. It should be noted that a full bibliographic entry and an abstract are typed on the Keysort card itself, with room below for additional notes such as "used for publication reference." The reference number is a sequentially assigned number given to all reprints, etc. These are stored approximately 500 reprints to a large file box and are thus readily available.

The entire system may be purchased at a relatively modest price when weighed against the time and frustration involved in searching for "lost" reprints.
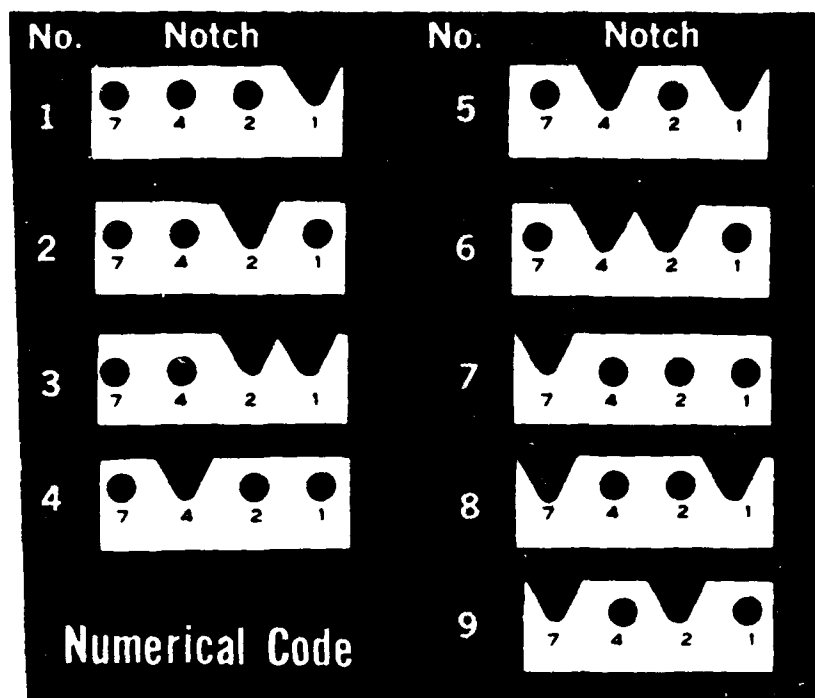
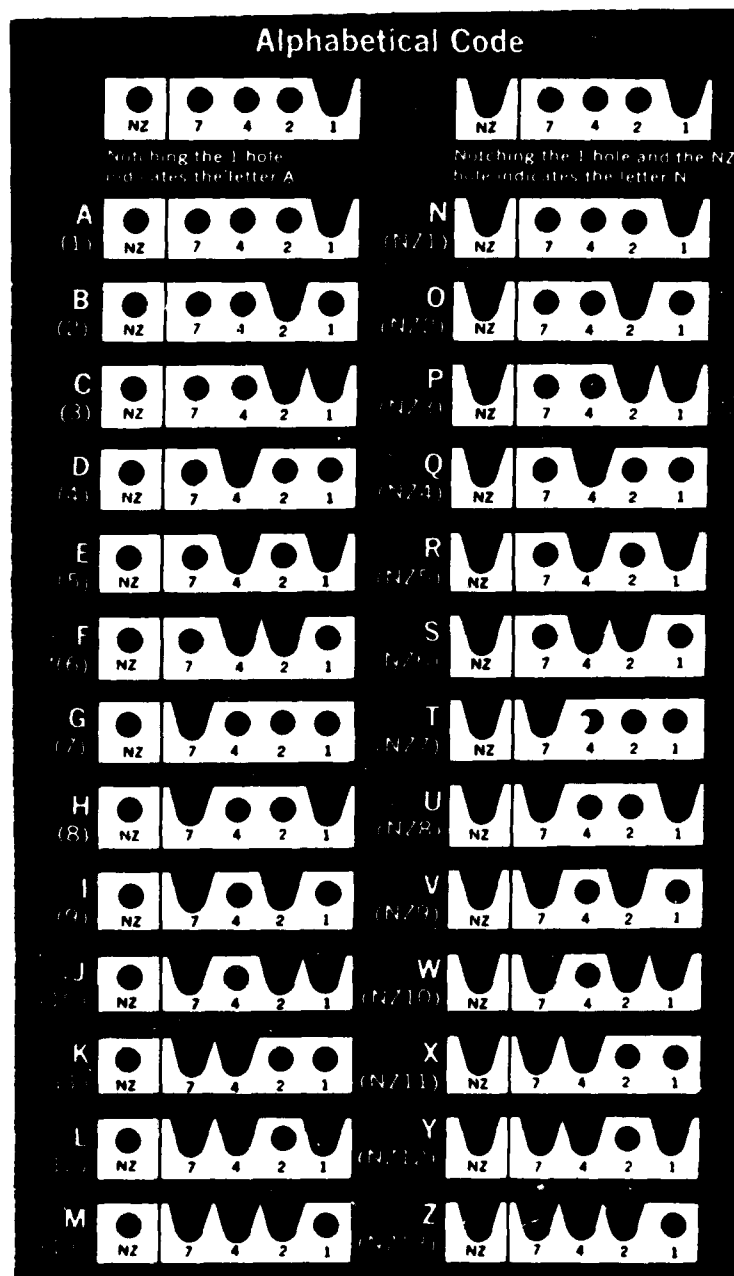Fig. 1. Numerical Code for Laboratory Reference Index System.

Fig. 2. Alphabetical Code for Laboratory Reference
Index System.

Fig. 3. A sample Keysort card with the area classifications indicated.

Fig. 4. A sample reference card with notches illustrating the area classification codes.

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13. ABSTRACT

A single card (self-coordinated) laboratory reference index is described. It utilizes a modified Keysort bibliographic card classification. The references are cross-indexed via a five-code classification for: 1) year of publication reference, 2) alphabetical index (senior author's surname), 3) a direct index (major laboratory subject), 4) classification index (minor subject division of direct index), and 5) numerical index (project number).

This edge punched data retrieval system is economically feasible and can be readily adapted to individual or medical laboratory use.

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14 KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT
Laboratory reference index Keysort card classification Data retrieval Self-coordinated index system Cross-indexed card classification						

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